

7/30
INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

50X1-HUM

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

C O N F I D E N T I A L

COUNTRY Poland REPORT [REDACTED]
 SUBJECT Research on Swine Disease DATE DISTR. 29 Jul 63 50X1-HUM
 NO. PAGES 1
 REFERENCES

DATE OF INFO. [REDACTED] 50X1-HUM
 PLACE & DATE ACQ. [REDACTED]

THIS IS UNEVALUATED INFORMATION

[REDACTED] 50X1-HUM

[REDACTED] a progress report (1 Jan - 30 Jun 62) 50X1-HUM
 on a Polish research project entitled "The antigenic structure of the microorganisms causing swine Erysipelas". The project is under the direction of Dr Henry Janowski and Dr Martin Troszczynski, Department of Pig Diseases, Veterinary Institute, Pulawy, Poland.
 CONFIDENTIAL. 50X1-HUM

-end- [REDACTED]

C O N F I D E N T I A L

50X1-HUM

STATE	ARMY	NAVY	AIR	FBI	AEC				
-------	------	------	-----	-----	-----	--	--	--	--

INFORMATION REPORT INFORMATION REPORT

CONTROLLED

NO DISSEM ABROAD

DISSEM: The dissemination of this document is limited to civilian employees and active duty military personnel within the intelligence components of the USB member agencies, and to those senior officials of the member agencies who must act upon the information. However, unless specifically controlled in accordance with paragraph 8 of DCID 1/7, it may be released to those components of the departments and agencies of the U. S. Government directly participating in the production of National Intelligence. IT SHALL NOT BE DISSEMINATED TO CONTRACTORS. It shall not be disseminated to organizations or personnel, including consultants, under a contractual relationship to the U.S. Government without the written permission of the originator.

Page Denied

Declassified in Part - Sanitized Copy Approved for Release 2013/07/19 : CIA-RDP80T00246A022500060001-5

Pulawy, Poland.

CONFIDENTIAL 1.1.62

3.VI.62

9. PROJECT TITLE

**The Studies on the Antigenic Structure
of the Erysipelothrix Rhusiopathiae.**

10A. SIGNIFICANT FINDINGS (If any)

The presence of several antigens, not described up to now has been demonstrated in the water-extract of the strains investigated. The species antigen has been found to be composed mainly of xylose, while the type-specific antigen of both the A and B serotypes is made of galactose and/or of glucose.

10B. SUMMARY OF PROGRESS (Give concise summary of progress for this report period) (If additional space is required, use FRTF Form 5B)

The following serotypes have been prepared in large quantities by cultivating them in every case in 120 litre batches of 3 per cent normal horse serum broth:

Erysipelothrix insidiosa strains R203/serotype A/,

AN₄/American strain, serotype B/,

B₅/serotype B/,

StG/non-virulent serotype B/,

StFr/non-virulent serotype B/,

P/belonging to the group H, without the type-specific antigens A & B/

MEW/belonging to the group N, without the type-specific antigens A and B/.

The bacterial sediments obtained after the centrifugation have been submitted to the chemical treatment according to Baker/water extract from acetone-dried bacteria/, according to Westphal and according to Mikulaszek.

The following preparations of all the mentioned strains have been obtained in a freeze-dried form:

1. Water extracts,
2. Lipo-polysaccharid-proteinic complexes - O₁N/aqueous phase of the phenol extraction/ according to Westphal,
3. Proteins/phenolic phase/ according to Westphal, and in addition, all the strains except B₅, P, and MEW were made to supply the lipo-polysaccharid-proteinic complexes - O₁N/ extractions by acetic acid according to Mikulaszek/, isoelectric nucleoproteins/precipitated at pH 4,5 using acetic acid/, and O₁N polysaccharide obtained by extracting the bacteria with the boiling 10 per cent solution of sodium hydroxide.

Four hyperimmune sera of each type: anti-R203, anti-AN₄, anti-StG, anti-StFr, anti-P, and anti-MEW have been prepared in rabbits. In addition a polyvalent anti-Erysipelae horse serum has been obtained/anti-A and anti-B/.

The serological experiments have been performed with the use of:

- a/ Agar gel diffusion precipitation test, and
- b/ Immunoelectrophoresis.

~~11.1.62~~ The optimum concentration, the final concentration and the number of precipitation zones with the polyvalent horse serum has been

11. SIGNATURE OF PRINCIPAL INVESTIGATOR IN CHARGE

12. DIRECTOR OF RESEARCH INSTITUTION

Dr. H. Truszczyński

Prof. dr St. Krause

FRTF FORM
AUG 59. 5A

CONFIDENTIAL

GROUP 1
Excluded from automatic
downgrading and
declassification

~~CONFIDENTIAL~~
R203 / Table 1/.

In the subsequent experiments it has been shown that the fractions C₁W and C₁E have contained a type-specific antigen and the species antigen. The fraction C₁H has shown the presence of one precipitation zone, which, as it has been shown by the use of type-specific sera and by the experiments of absorption, - has proved to be the type specific antigen. The fractions C₁W and of MSW and P strains contained the species antigen, without the type-specific antigen.

Ad b/ With the use of immunoelectrophoresis the achieved results related to the fractions C₁W, C₁E have confirmed those obtained by the diffusion precipitation test in agar gel. We succeeded also to identify the species antigen and the type-specific one in the preparation which contained both of them.

In the water extracts of the examined strains, using the polyvalent serum as the source of antibodies, the presence of some additional antigens, apart from those of the species and the type-specific ones has been made evident, viz.: one in the StFr and P strains, two in the StG and MSW strains, three in R203 and AN₂, and four in B₂ strains. All these are additional antigens, since they have not been found in polysaccharic preparations, are supposed to be very likely of the proteinic structure. As it follows from the accessible literature they have not been described up to now.

Another new finding which has been described up to now is the determination by the paper chromatography that the species antigen is made of mainly of xylose, while the type-specific antigen of both the A serotype and of B as well is made of galactose and/or of glucose.

CONFIDENTIAL

Antigenic Fraction Used	Number of Precipitation Zones.	Optimum Concentration in mg.	T i t e r in mg.
StFr-C ₁ W	2	2 = 5	0.1562
StFr-C ₁ M	2	1.25	0.3125
StFr-C ₂ M	1	1.250	0.0781
StFr-Westphal-protein	2	20	=
StG-C ₁ W	2	4	0.3125
StG-water extr.	3	2 = 8	0.3125
StG-C ₁ M	2	0.625-0.3125	0.00494375
StG-C ₂ M	1	0.3125	0.00494375
StG-nucleoprotein	3	2.5 = 5	
R 203-C ₁ W	2	2.5	0.3125
R 203-water extr.	4	20	0.1.250
R 203-C ₁ M	2	0.625	0.3125
R 203-C ₂ M	1	0.625 = 0.3125	0.0781
R 203-nucleoprotein	3	5	0.625

CONFIDENTIAL